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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/924,961	08/08/2001	Carl M. Hoffmaster	05516.089001	1995

22511 7590 01/27/2003

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EXAMINER

DANG, HOANG C

ART UNIT	PAPER NUMBER
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3672

DATE MAILED: 01/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application N .

09/924,961

Applicant(s)

HOFFMASTER ET AL.

Examiner

Hoang Dang

Art Unit

3672

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-200 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-200 are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

***Election/Restrictions***

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-20, drawn to an expandable reaming tool with spiral blades, classified in class 175, subclass 263.
  - II. Claims 21-28, drawn to an expandable reaming tool with cutting elements arranged for back reaming, classified in class 175, subclass 263.
  - III. Claims 29-46, drawn to an expandable reaming tool with reaming pads having balanced axial forces, classified in class 175, subclass 263.
  - IV. Claims 47-64, drawn to an expandable reaming tool with reamer pads having a substantially zero net lateral force acting thereon, classified in class 175, subclass 263.
  - V. Claims 65-82, drawn to an expandable reaming tool with cutting elements arranged to substantially balance work performed between the reamer pads, classified in class 175, subclass 263.
  - VI. Claims 83-85, drawn to an expandable reaming tool with reamer pads adapted to substantially mass balance the reaming tool about an axis of rotation thereof, classified in class 175, subclass 263.
  - VII. Claims 86-102, drawn to an expandable reaming tool with cutting elements positioned to have a backrake angle of greater than 20 degrees, classified in class 175, subclass 263.

Art Unit: 3672

- VIII. Claims 103-120, drawn to an expandable reaming tool with cutting elements having a diameter of less than 13 mm or greater than 13mm, classified in class 175, subclass 263.
- IX. Claims 121-131, drawn to an expandable reaming tool with cutting elements arranged on blades so that a cutting element exposure is equal to at least a half of a diameter of the cutting element, classified in class 175, subclass 263.
- X. Claims 132-150, drawn to an expandable reaming tool with cutting elements on at least one of the reamer pads arranged to form a redundant cutting arrangement with other selected cutting elements on a different one of the reamer pads, classified in class 175, subclass 263.
- XI. Claims 151-154, drawn to an expandable reaming tool with reamer pads and blades formed from a non-magnetic material, classified in class 175, subclass 263.
- XIII. Claims 155-159, drawn to an expandable reaming tool with reamer pads and blades formed from a matrix material infiltrated with a binder alloy, classified in class 175, subclass 263.
- XIV. Claims 160-170, drawn to an expandable reaming tool with a perpendicular distance measured from a surface of the at least two reamer pads to an outermost extent of a gage cutting element disposed on the at least one spiral blade is equal to at least twice a diameter of the gage cutting element, classified in class 175, subclass 263.
- XV. Claims 171-173, drawn to an expandable reaming tool with blades comprising hardfacing material thereon, classified in class 175, subclass 263.

Art Unit: 3672

XVI. Claims 174-181, drawn to an expandable reaming tool with diamond-impregnated blades, classified in class 175, subclass 263.

XVII. Claims 182-200, drawn to an expandable reaming tool with cutting elements arranged to form a tapered cutting structure, classified in class 173, subclass 263.

The inventions are distinct, each from the other because of the following reasons:

As for Group I, the "spiral blades" specifically called for in the claims of Group I are not required by any one of Groups II-XVII. Conversely, Group I does not require the essential features of Groups II-XVII.

In other words, the essential feature of any of one of the above Groups is not required by any of one of the remaining Groups.

2. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

3. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

4. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

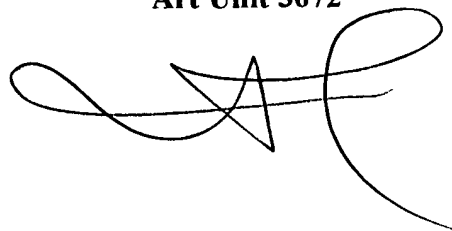
Art Unit: 3672

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hoang Dang whose telephone number is 703-308-2149. The examiner can normally be reached on 9:15-5:45 Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Bagnell can be reached on 703-308-2151. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3597 for regular communications and 703-305-3597 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-2168.

**Hoang Dang**  
**Primary Examiner**  
**Art Unit 3672**

A handwritten signature in black ink, appearing to be 'Hoang Dang', with a stylized, flowing script.

90924961.0res  
January 23, 2003